ABSTRACT

The objective of the present invention is to improve transmission characteristics by transmitting data through multiple paths in a multihop radio network including multiple paths.

5   In a source node 210 of (a), an encoder 212 performs communication path encoding, and a modulator 216 modulates. Unlike the prior art, however, a packetizing unit 214 designates relay paths and packetizes outputs from the encoder 212 for the respective paths, whereby signals are transmitted to multiple paths (in this case, two paths). A receiver (See (c)) of a destination node 260 demodulates the signals from the multiple

10   paths using a demodulator 262. Thereafter, it depacketizes the packet of binary data hard-decided by a depacketizing/buffering unit 263 and then temporarily stores the depacketized pieces of data for respective paths in a buffer. A reliability data calculator 265 then diversity-combines, taking reliability data into account. A combiner/decoder 267 performs an error correction based on that combined data.

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